

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions of claims in the application.

Listing of Claims:

1-7. (Cancelled)

8. (Currently amended): Apparatus for heating a motor vehicle cabin, comprising:

a circuit for circulating a cooling fluid for cooling an engine and including a pump, an air heater unit, and a heat exchanger disposed in an exhaust system provided with a depollution assembly,

wherein the depollution assembly comprises a catalyst and a particle filter,

wherein the heat exchanger is placed in said exhaust system downstream from the depollution assembly in the exhaust gas flow direction, and the exhaust system comprises a bypass duct in parallel with the heat exchanger, and

a flap for directing the exhaust gas towards at least one of (i) the heat exchanger and (ii) the bypass duct, said flap being actuated as a function of engine operating conditions, of the outside temperature, of the heating temperature requested in the cabin, and of the temperature of the engine cooling fluid,

wherein the engine is a direct injection diesel engine,

and wherein the engine includes means for injecting an additional quantity of fuel into at least some of the cylinders of said engine after the main injection of fuel therein, and to do so during the expansion stage of the cycle in said cylinders, so as to give rise to additional

combustion of fuel and increase the temperature of the gas flowing in the exhaust system and through the heat exchanger.

9-10. (Cancelled)

11. (Previously presented): Apparatus according to claim 8, wherein the flap can be tilted between a first position for closing the bypass duct and a second position for opening the bypass duct, said tilting between said first and second positions taking place in the direction in which the gas flows along the exhaust system.

12. (Previously presented): Apparatus according to claim 8, wherein the flap is disposed downstream from the heat exchanger relative to the gas flow direction in the exhaust system.

13-14. (Cancelled)